

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2016 / 2017

PCA 0084 – COMPUTER SYSTEM AND WEB DESIGN
(Foundation in Business)

29 MAY 2017
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 5 pages (excluding the cover page) with 5 questions only.
2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1 [10 Marks]

- a. Look at **Figure 1**. Answer the following questions.

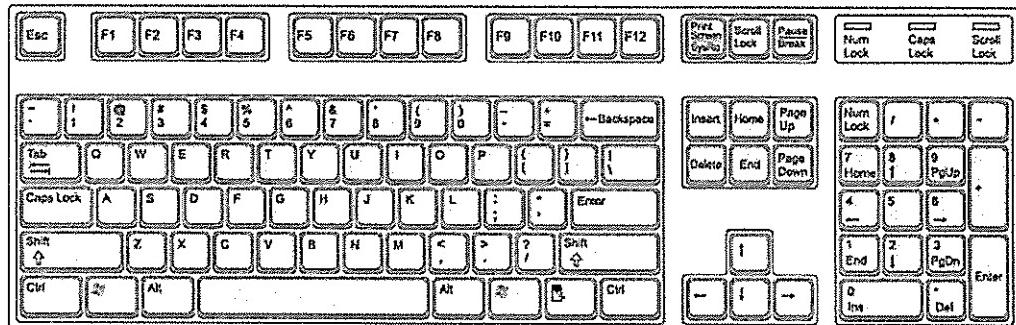


Figure 1

- What is the name of the device and what is its function?
(1 mark)
- Provide **TWO (2)** examples of key for each of the followings.
 - Toggle keys
 - Alphabet keys
 - Function keys
(3 marks)
- What are the **THREE (3)** ways to produce output from the computer?
(3 marks)
- Many companies use OCR characters on turnaround documents. What is *turnaround document*?
(2 marks)
- Give **TWO (2)** solutions to reduce chances of experiencing repetitive strain injuries at your wrist when typing on keyboard.
(1 mark)

Continued ...

QUESTION 2 [10 Marks]

- a. Choose appropriate units of measurement for the following speeds.

hertz	bit per second	byte per nanosecond	byte per second
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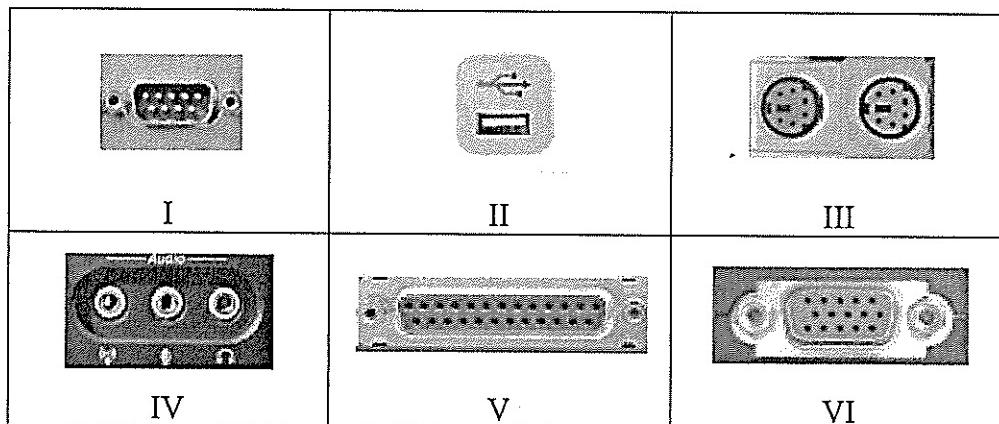
- i. Memory access time _____
- ii. Hard drive transfer rate _____
- iii. Data speed for computer modems _____
- iv. Clock speed of a CPU _____

(2 marks)

- b. Discuss briefly the functions of the following computer memory in the system unit.
- i. Random access memory
 - ii. Read only memory
 - iii. Cache
 - iv. CMOS

(4 marks)

- c. **Figure 2** shows some of the external computer ports located at the back of the system unit. Answer the following questions.

**Figure 2**

- i. What is computer port?

(1 mark)

- ii. Choose the correct name for the computer ports in **Figure 2**: VGA port, serial port, PS/2 port, USB port, audio port and parallel port.

(3 marks)

Continued ...

QUESTION 3 [10 Marks]

- a. *Stand-alone, server* and *embedded* are the three basic categories of operating systems that exist today.
- Discuss briefly how each category is different. (3 marks)
 - Give **THREE (3)** reasons why all types of computers must have operating system installed in them. (3 marks)
- b. Compare open-source software and proprietary software for desktop computers in terms of the licensing agreements and hardware requirements. Write your answers in a table format as shown in **Table 1**.

Table 1

Software	Licensing agreements	Hardware requirements
Open-source		
Proprietary		

(2 marks)

- c. Name the utility program used to do each of the following tasks.
- You plan to organize all your computer files in proper folders and to delete those unnecessary files.
 - You forget where you have saved your document in the computer.
 - You want to remove properly the computer games that you had downloaded from the Internet last month.
 - You want to detect and protect your computer from unauthorized intrusions.
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(2 marks)

QUESTION 4 [10 Marks]

- a. A small business that has less than 30 employees is just setup. The business owner wants to install a network at its new office. Few factors need to take into account when designing this network. Answer the following questions.
- State the difference between a local area network and a wide area network. Which network is more suitable to setup for the business and why? (3 marks)
 - There are three common topologies can be applied to the type of network you have chosen above. Choose **ONE (1)** and state **ONE (1)** advantage and **ONE (1)** disadvantage of the topology you choose. (2 marks)
 - Identify and explain briefly the features of **TWO (2)** physical transmission media that may be used to connect devices in the network. (2 marks)
- b. Below are qualities of valuable information.
- Accurate
 - Verifiable
 - Timely
 - Cost-effective

For each of the following statements, select the correct term from the list above.

- The airport security personnel scan the employee name tags for personal identification. _____
- Many business organizations make information available online instead of printed information. _____
- As consumers, we assume all credit reports we received from banks are error free. _____
- It is very important for business people to make important decisions based on the information on what is happening now and not outdated information. _____

(2 marks)

- c. Refer to **Figure 3**. It is an important consideration to choose the appropriate data type for a field. Why are the data types important?

player		Field Name	Data Type
Y	jersey		Number
	name		Text
	position		Text
	height		Number
	weight		Number
	birthdate		Date/Time

Figure 3

(1 mark)

Continued ...

QUESTION 5 [10 Marks]

- a. Name **THREE (3)** multimedia elements that can be used to effectively develop multimedia applications. Your answer should briefly describe each element. (3 marks)
- b. Virtual Reality is not only for entertainment. Give a definition of Virtual Reality and discuss briefly **ONE (1)** example of Virtual Reality application that can help professional environment. (2 marks)
- c. What is the main difference between the JPEG and GIF graphic format? (2 marks)
- d. Classify each of the terms below as a computer security threat for each of the following statement.

Malware	Privacy	Piracy
Information theft	Hardware theft	System Failure

- i. A small fire has broken out in a data center and server room of the Helton Hotel this evening and has interrupted some of the hotel business operations such as room bookings. _____
- ii. Mossa realized that someone has stolen and misused his credit card number because he received email payment notification without making any purchase. _____
- iii. Ronaldo notices that all his files with “.exe” and “.com” extensions in his flash drive are corrupted. _____
- iv. Olga has to reveal his name, contact information and login information when he subscribes emails on the Web. _____
- v. Lee, the lab technician, found that someone had swapped the 256MB PC memory to 128MB PC memory in some of the PCs in the computer lab which is under his surveillance. _____
- vi. Hunny is the head of a new division of a small company with about 40 PCs. She plans to reduce expenses for the company by cutting corners on the software licenses. She is authorized only for a single user license for the software she purchased but she plans to install the software in all the PCs. _____

(3 marks)